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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,170	07/20/2001	Howard Taitel	MWS-041RCE	1865
LAHIVE & COCKFIELD, LLP/THE MATHWORKS One Post Office Square			EXAMINER	
			ALAM, SHAHID AL	
Boston, MA 02	109-2127		ART UNIT	PAPER NUMBER
			2162	
			MAIL DATE	DELIVERY MODE
			04/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	09/910,170	TAITEL, HOWARD	
Office Action Summary	Examiner	Art Unit	
	Shahid Al Alam	2162	
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet wit	n the correspondence address	
A SHORTENED STATUTORY PERIOD FOR REP WHICHEVER IS LONGER, FROM THE MAILING  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory perionally reply or perionally reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the main earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNIC 1.136(a). In no event, however, may a re- ed will apply and will expire SIX (6) MONT oute, cause the application to become ABA	ATION.  Note: The street of the communication of th	
Status			
1) ☐ Responsive to communication(s) filed on 14 2a) ☐ This action is <b>FINAL</b> . 2b) ☐ Th 3) ☐ Since this application is in condition for allow closed in accordance with the practice under	nis action is non-final. vance except for formal matte		
Disposition of Claims			
4) ☐ Claim(s) 43-51 is/are pending in the applicat 4a) Of the above claim(s) is/are withdr 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 43-51 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and Application Papers	rawn from consideration.		
9)☐ The specification is objected to by the Examir	ner.		
10) The drawing(s) filed on is/are: a) according to the drawing and applicant may not request that any objection to the Replacement drawing sheet(s) including the correct of the oath or declaration is objected to by the I	ccepted or b) objected to be ne drawing(s) be held in abeyand ection is required if the drawing(s	e. See 37 CFR 1.85(a). ) is objected to. See 37 CFR 1.121(d).	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a list	nts have been received. nts have been received in Apiority documents have been reau (PCT Rule 17.2(a)).	plication No eceived in this National Stage	
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)	mmary (PTO-413) Mail Date ormal Patent Application -	

### **DETAILED ACTION**

1. Claims 43 – 51 are pending in this Office action.

## Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 50 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application with useful, concrete and tangible result.

The claim 50 is rejected under 35 USC 101 for being "software per se".

The claimed invention as in claim 50 is addressed to "a computer program product reading on a computer readable medium having instructions stored thereon" that can be interpreted as referring to lines of programming within a computer system, rather than referring to the system as a physical object. The claimed invention is also addressed to "a model" and "code" that are not a hardware system or medium but is a software system or program (see instant disclosure pages 15 – 16). Accordingly, the claim becomes nothing more than sets of software instructions which are "software per se".

"Software per se" is non-statutory under 35 USC 101 because it is merely a set instructions without any defined tangible output or tangible result being produced. The requirement for tangible result under 35 USC 101 is defined in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 47USPQ2d 1596 (Fed. Cir. 1998).

As such, the claim is not limited to statutory subject matter and is therefore nonstatutory.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 43, 50 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication Number 2003/0195729 issued to Jeffrey Kodosky et al. (hereinafter "729 reference").

With respect to claims 43, 50 and 51, "729 reference" teaches identifying portions of a model as being critical to a real-time execution of the model; identifying other

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portions of the model as being non-critical to the real-time execution of the model; generating code for real-time execution based on the critical portions of the model (page 21, claim 36); and

transmitting the generated code for execution on a target (page 21, claims 31 and 32).

# Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 44 – 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication Number 2003/0195729 issued to Jeffrey Kodosky et al. (hereinafter "729 reference") and in view of U.S. Patent Publication Number 2003/0196187 issued to Jeffrey Kodosky et al. (hereinafter "187 reference").

With respect to claims 44 - 49, "729 reference" teaches claimed inventions substantially as claimed, however, "729 reference" does not explicitly teach non-critical portions are post-processing units; the post-processing units are logical units of the model that have no synchronized data outputs feeding non-post-processing sections of the model; establishing an inter-process communication link between the generated code and the non-critical portions of the model; receiving output from the generated

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code via the inter-process communications link; executing the code on a target processor associated with the target and processing the output in the non-critical portions of the model as claimed.

The "187 reference" discloses the aforementioned limitations by executing subset of selections designated post processing unit sections (see page 14, claims 23 – 26).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of the "729 reference" with the "187 reference" because they are both directed to generation of hardware implementation of graphical code and are both in the same field of endeavor. One of ordinary skill in the art would have been motivated to do so because such modification would have allowed the "729 reference" to provide a seamless environment in which the user can develop an embedded application using high level programming technique (see Abstract of the "187 reference").

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### Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shahid Al Alam/ Primary Examiner, Art Unit 2162

March 29, 2008